

# LEONID GREMYACHIKH

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📍 Moscow, Russia

🔗 [bamasa.github.io](https://bamasa.github.io)

🌐 [github.com/bamasa](https://github.com/bamasa)

📁 [gitlab.com/bamasa](https://gitlab.com/bamasa)

🔍 Google Scholar: [NVO2imsAAAAJ](https://scholar.google.com/citations?user=NVO2imsAAAAJ)



## EDUCATION

National Research University Higher School of Economics

**Computer and Information Sciences**

📅 Nov 2019 – Sep 2022

📍 Moscow, Russia

- PhD in Applied Mathematics and Informatics
- The dissertation will be related to Machine Learning and Deep Reinforcement Learning

National Research University Higher School of Economics

**Data Science**

📅 Sep 2016 – Jun 2018

📍 Moscow, Russia

- MS in Applied Mathematics and Informatics
- Grade in Reinforcement Learning = 10
- Grade in Deep Learning = 10
- Thesis theme: "Automation of Satellite Collision Avoidance Maneuvers with Deep Reinforcement Learning"

National Research University Moscow Aviation Institute

**Design and Technology of Electronic Equipment**

📅 Sep 2009 – Feb 2015

📍 Moscow, Russia

- Specialist in Engineering

## WORK EXPERIENCE

Laboratory of Methods for Big Data Analysis

**Research Assistant**

📅 Apr 2018 – currently

📍 Moscow, Russia

ML, DL, RL, Distributed Learning, Research, Papers

Python

Radio Engineering Institute named after academician A. L. Mints

**Engineer**

📅 Apr 2015 – Apr 2018

📍 Moscow, Russia

Digital signal processing, Signal Analysis, Space Objects Recognition

C++

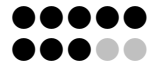
Mathcad

## HARD SKILLS

- Deep Learning
- Computer Vision
- Machine Learning
- Reinforcement Learning

Python

C++



## EDUCATION / COURSES

Computer Vision 2

OpenCV (2020) (*in process*)

Computer Vision 1

OpenCV (2020) (*in process*)

Computer Vision

OTUS (2020)

Advanced ML Specialization

Coursera (2019-2020) (*in process*)

C++ Specialization

Coursera (2019-2020) (*in process*)

Autumn School on Generative Models

HSE-Yandex (26-29 November 2019)

## SOFT SKILLS

- presentation skills
- meeting management skills
- communication
- self-management, self-efficiency
- teamwork skills
- mentoring
- documentation

## PROJECTS

### Anomaly Prediction in Storage Area Network (2018-2020)

- a publication "SANgo: a storage infrastructure simulator with reinforcement learning support"
- researched methods for improving Digital Twin of Storage Area Network, tested methods on chaotic systems, developed OpenAI Gym wrappers, applied RL methods
- NLP on logs

Python Docker DL RL NLP

### Sixth Machine Learning in High Energy Physics Summer School (2020)

Volunteering, helping students.

Python DL Mentoring

### International Data Analysis Olympiad (2020)

Participated in the preparation of Higher School of Economics and Yandex the 3rd international data analysts olympiad. The competition task – build a model that would predict the position of space objects using simulation data.

- analyzed the task and SOTA
- prepared and verified data (ephemeris) using GMAT and SGP4
- prepared a baseline (LR)
- checked and analyzed the solutions of the participants
- answered questions from participants

Python GMAT

### Satellite Positioning (2019-2020)

The project task – build a model that would predict the position of space objects using simulation data.

- students mentoring

Python Management Mentoring

### Distributed Deep Learning (2018-2019)

- developed Distributed Deep Learning pipelines

Python Docker Azure DL

### Model Gym (2018)

- developed and debugged a hyperparameter optimization system

Python ML

### Automation of Satellite Collision Avoidance Maneuvers with Deep Reinforcement Learning (2017-2018)

- a publication "Space Navigator: a Tool for the Optimization of Collision Avoidance Maneuvers"
- researched and developed a system for calculating maneuvers for spacecraft based on Machine Learning
- MVP is done
- participated in IAA SciTech Forum 2018

Python DL RL

### Sex Prediction via Deep Learning (2017)

- researched Sex Prediction via Deep Learning by person's Friends Graph from social network and friends' photos
- used pre-trained VGG from ImageNet, Social Network Analysis
- collected data from "vk.com"
- obtained better score than the baseline

Python DL Social Network Analysis

## PUBLICATIONS

### Journal Articles

- K. Arzymatov, A. Sapronov, V. Belavin, L. Gremyachikh, M. Karpov, A. Ustyuzhanin, I. Tchoub, and A. Ikoev (2020). "SANgo: a storage infrastructure simulator with reinforcement learning support". In: *PeerJ Computer Science*, pp. 1–16.
- "Space Navigator: a Tool for the Optimization of Collision Avoidance Maneuvers" (2020). In: *CoRR abs/1902.02095*. eprint: 1902.02095.

## TEACHING

- Python for Data Science (2020-2021, Skillbox)
- Introduction to Data Analysis (2021, HSE University)

## CONFERENCES & SPEECHES

- SMILES, Moscow, SKOLTECH, international summer school – poster presentation "AI and Satellite Problems" (2020)
- IDAO (international data analysts olympiad) – IDAO Webinar on Data Analysis for Satellite Tracking (2020)
- Space debris: fundamental and practical aspects of the threat, Moscow, Institute of Astronomy RAS and Space Research Institute RAS, Russian conference with international participation – report "Space Navigator" (2019)
- IAA SciTech Forum 2018, Moscow, RUDN, international conference – paper report "Space Navigator: a Tool for the Optimization of Collision Avoidance Maneuvers" (2018)